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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,178	07/08/2003	Ruben Herrera	37310-000204/US/DVA	7088
30595	7590	07/12/2004	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			NGUYEN, LONG T	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/614,178

Applicant(s)

HERRERA ET AL.

Examiner

Long Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/28/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This office action responsive to the amendment filed on 4/29/04.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description: Figure 4 does not show “Qsb” and “Qs” (see page 5, lines 23-29).

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claims 9-17 are objected to because of the following informalities:

Claim 9, on lines 2, 7, 13, 16, 21, 24 and 27, “circuit element” is suggested to change to -  
-circuit-- (i.e., deleting “element” from the above phrase).

Claim 9, line 14, “a reference” should be changed to --the reference-- (see line 11).

Claim 9, line 17, it appears that “said binary input signal” should be changed to --a binary  
input signal-- to avoid lacks antecedent basis.

Claim 9, line 24, --and-- should be inserted after the comma.

Claim 10, line 2, "circuit element" should be changed to --circuit--.

Claim 11, line 2, "said means for switching" should be changed to --said means responsive to voltages on said capacitors for switching--.

Claim 11, line 2-3, "circuit element" should be changed to --circuit--.

Claim 12, "its complement" should be changed to --a complementary of the input signal--

Claim 16, line 2, "circuit element" should be changed to --circuit--.

Claims 10-17 are also objected to because they include the minor informalities of claim 9 and, where appropriate, including the minor informalities of other intervening claims.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. Claims 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 13, the recitation "means for inhibiting transitions in said input signal from affecting said means for connection" is indefinite because it appears to be misdescriptive and it is unclear how the transitions in the input signal not affecting the means for connection. It's clear from the specification and Figure 4 that the means for connecting (M46-M48) directly connecting to the Vin, so whenever the input signal Vin having a transition then transistors M45 and 47 will be switching state from ON to OFF, or from OFF to ON. Therefore, the transition in the input signal affects the means for connecting. Clarification is requested.

With respect to claim 14, the recitation "a transistor connected in parallel across said capacitors" on line 2-3 is indefinite because it is inconsistent with what is disclosed and shown in

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Figure 4. Note the Figure 4 shows transistor M414 is in parallel with only capacitor C41 (not both capacitors), and transistor M415 is in parallel with only capacitor C42 (not both capacitor). It appears that the recitation “a transistor connected in parallel across said capacitors operating in response to a constant applied voltage” should be changed to --a first transistor connected in parallel across said first capacitor operating in response to a constant applied voltage, and a second transistor connected in parallel across said second capacitor operating in response to the constant applied voltage--.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 9-11 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Obara (USP 4,680,482).

With respect to claim 9, Figure 3 of the Obara reference discloses a circuit, which includes: a bistable circuit (Q59, Q60), first and second output terminals (Co, Co/); and triggering means (Q55-Q58, C51, C52); wherein the triggering means (Q55-Q58, C51, C52) including a first capacitor (C51), a reference voltage (ground), a second capacitor (C52), a first switch (Q57), a second switch (Q58), binary input signal ( $\Phi 2$ ), and means responsive to voltages on the capacitors (Q55, Q56).

With respect to claim 10, Figure 3 of the Obara reference shows the bistable circuit including first (Q59) and second (Q60) inverters (when gate of C0 is H then output of Q60 at Co/

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is L, and when gate of Q59 is L then output of Q59 at Co is H so it is reasonable to construe that Q59 is an inverter, and Q60 is another inverter).

With respect to claim 11, the means (Q55, Q56) responsive to voltages on said capacitors for switching the bistable circuit including means (Q55, Q56) for connecting the output terminal of one of the inverters to the reference voltage (i.e., when Q53 Q55 turn on then Co is connected to ground, and when Q54 and Q58 turn on then Co/ is connected to ground).

With respect to claim 15, Figure 3 shows the reference voltage (ground) is ground.

With respect to claims 16 and 17, Figure 3 shows the circuit including means (Q51-Q54) for resetting the bistable circuit (Q59-Q60) to an initial state (i.e., when Carry is H, then Q51-Q54 turns on); wherein the means for resetting (Q51-Q54) including a switch (Q53-Q5) connecting at least one of the output terminals (Co, Co/) to ground (see line 57 of Col. 7 to line 7 of Col. 8).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Obara (USP 4,680,482) in view of Burns et al. (USP 3,475,435).

With respect to claim 12, the circuit in Figure 3 of the Obara reference meets all the limitations of this claim including the switches (Q57, Q58) including pass transistor configurations except that the pass transistor configurations responsive to the input signal and a

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complementary of the input signal. However, the Burns et al. reference discloses in Figure 4 a pass transistor configuration (transmission gate 32 and 60) responsive to signal 72 and complementary signal 70 having advantages such as faster switching and improving the performance of transmitting the signal. Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify the circuit in Figure 3 of the Obara reference by using particular pass transistor configuration in Figure 4 of Burns et al. for each of the broad switches Q57 and Q58 because the pass transistor configuration with two transistors in parallel responsive to the input control signal and the complementary of the input control signal having advantages such as faster switching and improving the performance of transmitting the signal from input terminal to output terminal.

### ***Conclusion***

9. Because of the indefinite problems of claims 13 and 14, no prior art can be applied at this time. Note that this is NOT an indication of allowability.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Long Nguyen whose telephone number is (571) 272-1753. The Examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached at (571) 272-1740. The fax number for this group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 29, 2004

A handwritten signature in black ink, appearing to read 'Long Nguyen', with a long, sweeping horizontal stroke extending to the right.

Long Nguyen  
Primary Examiner  
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